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HEALTH THROUGH EDUCATION,  
PREVENTION AND  
TREATMENT**

**CLUJ-NAPOCA, ROMANIA**



**This volume contains abstracts from the**

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THROUGH EDUCATION, PREVENTION AND  
TREATMENT**

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the Scientific Committee of the Symposium**

**Responsibility for data and statements  
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# SCIENTIFIC PROGRAM

<b>FRIDAY / VENDREDI 7.12.2018</b>		
<b>Time</b>	<b>Amphitheatre Oprisiu (FRANCAIS)</b>	<b>Amphitheatre Aleman (ENGLISH)</b>
8:30 - 9:00		<b>OPENING CEREMONY</b>
9:00 - 10:40		<b>ALUMNI STORIES AND RESENTATIONS:</b>  <b>Dr. Emad Wani</b> - Abu Dhabi (Videoconference)  <b>Dr. Ovidiu Radescu</b> - Romania  <b>Dr. Alexandru Grecu</b> - Romania
10:40 – 11:00	<b>COFFEE BREAK</b>	
11:00 – 12:00	<b>CONFERENCE:</b>  <b>Prof. Dr. Charpiot Phillipe</b> Pique-nique chez les australopithèques... et quelques autres vieux amis : une petite histoire de l'alimentation	<b>CONFERENCES:</b>  <b>Dr. Bianca Bosca</b> Accumulation of n-epsilon carboxymethyl lysine in rat oral cavity tissues and organs correlated with aging  <b>Dr. Roxana Bordea</b> The use of Lasers in Dentistry  <b>Dr. Cristian Sonea Ghisa</b> The importance of dental prevention and patient perception!
12:00 - 13:00	<b>LUNCH BREAK</b>	
13:00 - 15:00	<b>CONFERENCES:</b>  <b>Dr. Mariana Constantiniuc</b> La prothèse complète conventionnelle à l'ère du numérique  <b>Dr. Anca Mesaros</b> Le CFAO dans les traitements orthodontiques  <b>Dr. Alexandrina Muntean</b> Prévention des lésions dentoparodontales dans les traitements orthodontiques  <b>Dr. Cristian Olteanu</b> Modifications de l'esthétique faciale résultant du traitement orthodontique des anomalies de classe III angle  <b>Dr. Mihai Varvara</b> Les matériaux usinables CFAO: Feldspatique or Lithium Silicate  <b>Dr Bianca Varvara</b> Les méthodes de stratification des matériaux de restauration en résine composite, regardant leurs propriétés optiques	<b>ORAL PRESENTATIONS-STUDENTS:</b>  <b>Roxana Ilies</b> Can we improve your post-ACL surgery recovery?  <b>Saravanapravan Prashanth</b> Vein of Galen Aneurysmal Malformation in Neonates  <b>Andrada Orodan</b> Hereditary breast cancer – a challenge in patient care  <b>Roxana Ilies</b> Sea buckthorn extract in the treatment of psoriasis  <b>Oana Vrabie</b> Biocompatibility of titanium scaffolds manufactured by selective laser melting technique (SLM)  <b>Ralph Boutros</b> Impact of social media in the medical field

Time	Amphitheatre Oprisiu (FRANCAIS)	Amphitheatre Aleman (ENGLISH)
15:00 - 15:30	<b>COFFEE BREAK</b>	
15:30 - 16:00	<b>ALUMNI STORIES AND PRESENTATIONS:</b> <b>Dr Christian Bitar - France</b>	<b>ALUMNI STORIES AND RESENTATIONS:</b> <b>Dr. Adela Maghear – Belgium</b> (Videoconference)
16:00 – 17:00	<b>ORAL PRESENTATIONS-STUDENTS:</b> <b>Johanna Fanciulli</b> Traitement provisoire des agenesies des incisives laterales grace au bridge maryland  <b>Daniela Timus</b> Intégration tissulaire d'échafaudages de titane fabriqués par slm  <b>Ralph Boutros</b> Lithium silicate ranforcee avec zircone : Celtra Duo versus Vita Suprinity	<b>CONFERENCE:</b>  <b>Prof. Dr. Mehmet Akif Baktir</b> Autophagy: As a Cellular Stress Response and Cellular Death Mechanism. How the cells clean their houses?
17:00 - 18:00	<b>TABLE RONDE:</b>  <b>Dr. Cezar Login</b> Un essai de redéfinir une méthode traditionnelles d'enseignement : le cours	<b>CONFERENCES:</b>  <b>Dr. Codruta Popescu</b> Career preferences: trends among medical students from UMF "Iuliu Hațieganu" between 2013-2018  <b>Dr. Horatiu Crisan</b> Professionalism And Conscientious Objection In Medicine  <b>ALUMNI STORIES AND RESENTATIONS:</b>  <b>Dr. Margareta Gavrilă – USA</b> (Videoconferinta)



## SATURDAY / SAMEDI 8.12.2018

Time	Amphitheatre Oprisiu (FRANCAIS)	Amphitheatre Aleman (ENGLISH)
9:00 - 10:00	<b>TABLE RONDE:</b> <b>Dr. Reginald Yann Maldonado</b> <b>Madame Marilyn Ponchon</b> Travailler en mutualite: la realite de l'exercice	<b>ALUMNI STORIES AND RESENTATIONS:</b> <b>Dr. Zoltan Baktai</b> - Hungary
10:00 - 10:40	<b>CONFERENCE:</b> <b>Dr. Berthone Maxime</b> Lecture systématique et décryptage d'une radiographie panoramique	<b>CONFERENCES:</b> <b>Dr. Diana Dudea</b> Research directions in the Faculty Of Dentistry, University Of Medicine And Pharmacy "Iuliu Hatieganu"  <b>Dr. Carina Culic</b> Tips and Tricks in everyday dentistry
10:40 - 11:00	<b>COFFEE BREAK</b>	
11:00 – 12:00	<b>CONFERENCE:</b> <b>Dr. Boujema Wallid</b> Stratifications composites en secteur antérieur maxillaire au quotidien : quelle stratégie adopter ?	<b>CONFERENCES:</b> <b>Dr. Dinu Dumitrascu</b> Composite tissue transplantation. The medical ethics.  <b>Dr. Aliona Tihon</b> Occupational hazards to dental staff of or relating to a job or profession.
12:00 - 13:30	<b>CONFERENCES:</b> <b>Dr. Culic Bogdan</b> Les Systèmes CFAO - concepts et utilisation clinique  <b>Dr. Berthone Maxime</b> Proposition d'un protocole de prise en charge des traumatismes alvéolo-dentaires en denture permanente mature	<b>ORAL PRESENTATIONS</b> <b>YOUNG SCIENTISTS:</b>  <b>PhD Candidate: Vlad Andrei</b> New versus old oral anticoagulants in dentistry - literature review and case report  <b>PhD Candidate: Andreea Ciurea</b> Class II restorations. Periodontal and restorative implications  <b>PhD Candidate: Irina Lupse</b> The subgingival makeup in a group of periodontitis patients  <b>PhD Candidate: Iulia Micu</b> Periodontal status in a group of oral cancer patients  <b>PhD Candidate: Nausica Petrescu</b> Management of the anxious patient in the Dental Office  <b>PhD Candidate: Anida Babant</b> Advanced glycation end products (AGEs) ultrasound evaluation in facial skin and mucosa
13:30 – 14:00	<b>CLOSING CEREMONY</b>	

## WORKSHOPS

Time	Title	Place	No. of places	Lecteur	Language
FRIDAY 07.12.2018  10:00-12:00	<b>3D PRINTING Additive manufacturing in digital dentistry- the DLP procedure</b>	Department of Dental Propaedeutics and Esthetics  Clinicilor 32 First Floor, Lab 108	15	Dr. MDT. Alexandru Burde	EN
FRIDAY 07.12.2018  10:00-12:00	<b>Retrouvez le plaisir de sourire grâce au traitement Invisalign. De la première consultation à la contention</b>	Department of Dental Propaedeutics and Esthetics  Clinicilor 32 First Floor, Lab 105	15	Dr. Christian Bitar	FR
SATURDAY 08.12.2018  9:00-12:00	<b>Comment être efficace et conservateur avec un seul instrument pour la préparation canaire – One Curve / MicroMega</b>	Sous-section d’Odontologie, Endodontie et Pathologie Orale, dans le Laboratoire d’Odontologie au partère,  Motilor 33 RDC	15	Dr. Sanda Cimpean Dr. Ioana-Sofia Ciutrita Dr. Loredana Colceriu	FR

## **ALUMNI STORIES AND PRESENTATIONS**



## **DR. ZOLTAN BAKTAI**

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Dr Baktai was born on 3 April 1984 in Gyula, Hungary. On the mother's side, he belongs to the Romanian minority in Gyula, where there is a community that emphasizes the maintenance of Romanian traditions. So his parents enrolled him at the General School and Nicolae Balcescu Lyceum in Gyula where he learned the basics of the Roman language. After high-school graduation he continued his studies at Iuliu Hatieganu University of Medicine and Pharmacy in Cluj-Napoca in Dental Medicine, in the Romanian teaching program.



After graduating from the Faculty of Dental Medicine, he went back to Hungary, where he started working in a small village and since then he is part of the Hungarian College of Physicians. After two years, he was given the opportunity to take over a state funded practice in the largest city in the county, called Békéscsaba. Until today he works for both the state and the private sector, owning his practice.

Thanks to the satisfied patients and the dedication to the work, and the thorough documentation of the daily cases, he has drawn the attention of some famous doctors from Hungary who invited him to make presentations for several groups of colleagues. This year he was able to present at the most famous Hungarian Dental School, and at the most famous Hungarian congress called Dental World in Budapest.

Every year he attends many courses organized both nationally and internationally because he believes continuous professional development is essential.

### **THE DAILY ISOLATION IN THE DENTAL OFFICE**

Today, the use of amalgam as a dental filling material is banned. The place of amalgam fillings is taken over by the "white fillings", otherwise known as composites, which besides the fact that they have a lot of advantages, are much more sensitive, their durability depending largely on the operator's abilities to manipulate them. In order to obtain a suitable and durable composite, and because the oral cavity is a tricky environment, we must exclude the presence of factors such as moisture, blood and saliva. This result can be achieved by using elastic foils, called rubber dams.

I will present the basic tools that are essential in a dental office to work more accurately and nicely from an aesthetic point of view, I will provide a guide that all colleagues who have not yet used dental dams can start using it themselves easily. I will continue with summarizing the things that are needed for daily isolation, with case presentations, I will offer advice hoping that those present will want to use the dental dam from the next working day.

## **DR. CHRISTIAN BITAR**

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Dr. Christian Bitar is an Alumni of the Faculty of Dentistry from the Iuliu Hațieganu University of Medicine and Pharmacy, Cluj-Napoca Romania. He graduated dentistry in 2016 and he has been working since in his Clinic in Amiens, France.

During the Symposium he will be holding a **WORKSHOP**.



## **DR. MARGARETA GAVRILA**

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Dr. Margareta Gavrilă graduated from the Institute of Medicine and Pharmacy Faculty of Stomatology, Cluj Napoca, Romania in 1977. She moved to USA in 1984 with her husband and her 5 year-old son. In 1989 she had finalized all the requirements for being licensed to practice in USA and she became a USA Permanent Citizen.

After passing the National and State Boards Exams at USC School Of Dentistry in LA, she became an Assistant Clinical Professor at USC Dental School for about 7 years.

During her continuous training she was mentored by some of the best clinicians in the world: Dr. Pete Dawson, Dr. Frank Spear and Dr. Terry Tanaka. She is extensively trained in Cosmetic dentistry, TMJ, occlusion, sleep apnea, implants and has an amazing passion in treating patients from a simple filling to the most involved and complex case.

Dr Gavrilă is the very first recipient of the PASSION IN DENTISTRY AWARD from the Pete Dawson Academy of Dentistry.

She is an active member of many professional associations among which: The American Academy of cosmetic Dentistry, The American Academy of Craniofacial Pain, The Academy of General Dentistry, The American Dental Association and many others.

During her presentation she will talk about her professional achievements and how her training in our University has contributed to her success.



## DR. ALEXANDRU GRECU

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Dr. Grecu Alexandru Gratian is Assistant Professor within the Department of Dental Propaedeutics and Dental Aesthetics, Faculty of Dental Medicine, “Iuliu Hatieganu” University of Medicine and Pharmacy, Cluj-Napoca. He graduated the same Faculty of Dental Medicine in September 2011, followed by a Master Degree in Forensic Medicine. Since then, he carries out his activities in the domains of dentistry, Faculty teaching and medical research. The teaching activities involve the 1<sup>st</sup>, 2<sup>nd</sup>, 4<sup>th</sup> and 5<sup>th</sup> years of study in Dental Medicine, both Romanian and English sections and all the three years of study in Dental Technique. Grecu Alexandru’s research domains include psychological aspects of dental medicine, patients’ perceptions in dental aesthetics and dental shade. He currently runs his PhD thesis in the fields of oral health related quality of life and dental anxiety, in both adults and children.



### HEALTH RELATED QUALITY OF LIFE AND ORAL HEALTH RELATED QUALITY OF LIFE – STUDY IN A GENERAL POPULATION

**Grecu Alexandru Grațian<sup>1</sup>, Balazsi Robert<sup>2</sup>, Todea Smaranda<sup>1</sup>, Dumitrașcu Dan-Lucian<sup>1</sup>**

*1. Department of Prosthodontics and Dental Materials, “Iuliu Hatieganu” University of Medicine and Pharmacy, Cluj-Napoca*

*2. Department of Psychology, “Babeș-Bolyai” University, Cluj-Napoca*

*3. Second Medical Department, “Iuliu Hatieganu” University of Medicine and Pharmacy, Cluj-Napoca*

**Objective:** Assessment of the self-perceived oral health and general health, investigating the relationship between these concepts, in a general population sample.

**Materials and Method:** A group of second year dental students have been trained in applying a set of questionnaires to 5 close persons, relatives or acquaintances. Inclusion criteria comprised: male/female gender, age: 18-80 years old, at least middle school educational level. The sample included 111 subjects. The respondents answered the following questionnaires, under the interview format: The Oral Health Impact Profile-49Ro, Romanian version of SF-36 and a set of general questions. For each questionnaire, scores were computed and used in the evaluation of both the self-perception differences in respect to the variable gender and the correlations between self-perceived oral and general health.

**Results:** Regarding the complete sample, the highest OHIP-49Ro scores, suggesting a low perceived oral health, were obtained for the functional limitation (mean scores 5-20), pain (mean scores 5-15) subscales. Regarding the complete sample, the lowest SF-36 scores, suggested a low perceived general health, were obtained for the physical pain (mean score 48), mental health (mean score 70) subscales. The t-test indicated statistical significant differences, in respect to the variable gender, in the self-perceived oral health, for the pain subscale ( $p=0.035$ ) and in the self-perceived general health, for the physical functioning ( $p=0.012$ ) and vitality ( $p=0.017$ ) subscales. Multiple, statistically significant correlations were obtained between the OHIP-49Ro and SF-36 subscales.

**Conclusions:** The current study reported the presence of a relation between the perceptions of oral health related quality of life and health related quality of life, and, additionally, statistically significant differences in their perception, regarding gender.



## DR. ADELA MAGHEAR

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Dr. Adela Maghear graduated from the University of Medicine and Pharmacy "Iuliu Hațieganu" from Cluj-Napoca, Faculty of Pharmacy in 2009.

After graduating from the faculty, she started her Ph.D. in a fellowship between UMF "Iuliu Hațieganu" from Cluj Napoca and the Université de Lorraine (France). Four years later she became Doctor of Medical Sciences (Pharmacy) and Doctor of Chemistry. Then followed an internship at the European Parliament in Brussels where she learned how to use the medical and the scientific knowledge accumulated to make legislative recommendations on health policies and how to influence the political landscape at European level. After this internship, she stayed in Brussels where she works as a Senior Scientific Policy Policy Adviser in the field of health policies. Her responsibilities include political and advocacy activities. These include attending ad hoc meetings with the European Commission, MEPs, pharmaceutical industry, World Health Organization (WHO), UNDP, and participation in international conferences. She answers the consultations launched by the European Commission, the European Medicines Agency and the WHO; she writes scientific reports to support the legislative recommendations she makes, organizes international conferences, webinars and workshops. The most important project she's working on is to combat antimicrobial resistance - participate in working groups and make legislative proposals in this regard. Together with her colleagues she has developed and led, at European level, the Safer Pharma campaign to combat environmental pollution with pharmaceuticals and the contribution of this type of pollution to the spread of antimicrobial resistance.

In 2017, at World Water Week, she was invited to Stockholm to hold a conference in the presence of Sweden's Succession Princess, Victoria, about the role of medical professionals in fighting antimicrobial resistance.

Since January 2018, she is one of the external experts of the European Medicines Agency. As such, she takes part in some of the Agency's internal consultations on marketing dossiers for medicinal products. In May 2018, she attended the World Health Assembly in Geneva as an official delegate of the International Federation of Pharmacist Students (IPSF). Here, in the presence of the WHO leadership and the representatives of the governments of WHO member states, she presented a live statement about the role of the pharmacist in combating antimicrobial resistance and the problem of the presence of pharmaceuticals in the environment.

Her work has been taken over by the international press: The Telegraph News, Le Monde, Pharmaceutical Technology, ChemicaWatch UK etc.



## DR. OVIDIU RADESCU

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Dr. Ovidiu Radescu has graduated the Faculty of Dental Medicine from the Iuliu Hațieganu University of Medicine and Pharmacy, in Cluj-Napoca, Romania in 2009. After graduation he followed a residency program in the field of Orthodontics at the same University in Cluj-Napoca and received his Specialist Degree in 2012. He has recently defended his PhD Thesis entitled Upper Airway space changes through orthodontic, orthopaedic and orthognatic surgical treatment, effects in obstructive sleep apnea syndrome. The PhD Research was done at he Iuliu Hațieganu University of Medicine and Pharmacy from Cluj.



From graduation of Dental Medicine he worked as an intern at the Clinical County Hospital in the Department of Orthodontics in Cluj-Napoca and after becoming a specialist he stayed as associate assistant professor in the department of Orthodontics. At present he owns his own private practice FirstOrthoDent in Brasov, Romania.

### **PEDIATRIC SLEEP APNEA SYNDROME: EFFECTS OF AN ANTERIOR MANDIBULAR POSITIONING DEVICE AND RAPID PALATAL EXPANSION WITH ORTHODONTIC TEATMENT**

**Ovidiu Dănuț Rădescu<sup>1</sup>, Viorica Țărmure<sup>1</sup>, Sorin C. Man<sup>2</sup>, Silviu Albu<sup>3</sup>, Mihaela Băciu<sup>4</sup>, Simion Bran<sup>4</sup>, Doina Adina Todea<sup>5</sup>**

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<sup>3</sup> *Cervical facial surgery and ENT, Department of Oto-Rhino-Laryngology, Faculty of Medicine „Iuliu Hațieganu” University of Medicine and Pharmacy, Cluj-Napoca*

<sup>4</sup> *Maxillofacial Surgery and Radiology, Department of Maxillofacial Surgery and Implantology, Faculty of Medicine „Iuliu Hațieganu” University of Medicine and Pharmacy, Cluj-Napoca*

<sup>5</sup> *Medical specialty, Department 6 Pneumology, Faculty of Medicine „Iuliu Hațieganu” University of Medicine and Pharmacy, Cluj-Napoca*

**Introduction:** Obstructive sleep apnea syndrome in children is characterized by recurrent events of partial or complete upper airway obstruction during sleep, resulting in disruption of normal gas exchange (intermittent hypoxia and hypercapnia) and sleep fragmentation.

In patients having (OSAS) associated with craniofacial anomalies, functional orthopedics are used to change the mandible posture forwards, to enlarge the upper airway and to increase the upper airspace, improving the respiratory function.

**Aim:** This case report describes the changes in dentoalveolar, maxillofacial and pharyngeal structures, after mandibular advancement-device treatment in a young female patient suffering from severe obstructive sleep apnea.

**Materials and methods:** We present 3 case reports especially this 8-year-old girl had been diagnosed in 2015 with severe obstructive sleep apnea syndrome (AHI of 45.7 events/ hour). The patient underwent a tonsillectomy by an ENT surgery team and she had an indication for continuous positive airway pressure (CPAP) therapy. After CPAP therapy she was transferred for an orthodontic opinion. A functional appliance (mandible advancement) was indicated in this first treatment phase, as the child was in the late mixed dentition. Mandible advancement and bite

opening were adjusted for the patient according to a construction bite at an edge-to-edge incisal position.

Two cephalometric lateral and anteroposterior radiographs were also performed before and after treatment.

**Treatment progress and results:** After tonsillectomy and 6 months later, the apnea hypopnea index AHI had decrease at 13.4 events/hour and after wearing the mandibular advancement device for 12 months AHI decreased significantly from 13.4 to 7.4 events per hour of sleep. The mandibular position in relation to the skull base, the angle SNB, was increased on average of 3°, with a Witts appraisal of jaw disharmony from 14.65 mm to 8.82 mm and a restraining effect for the maxilla from 81° to 77°.

**Conclusions:** Early orthodontic treatment with functional appliance appeared to be effective in correcting molar relationship and reducing overjet in children with retrognathic mandible.

The management of OSAS in pediatric patients, requires a collaboration between a pediatrician, a pneumologist, a sleep medicine specialist, an ENT physician, and an orthodontist, for an accurate diagnosis and a comprehensive treatment plan.

## **DR. EMAD WANI**

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Dr. Emad Wani has graduated Dentistry from the University of Medicine and Pharmacy, in Cluj-Napoca, Romania in 1989. After graduation he followed a residency in Orthodontics at the same University in Cluj-Napoca and received his Specialist Degree in 1992. Soon after graduation in Dentistry he also started research for his PhD Degree in Orthodontics at the University of Medicine and Pharmacy in Timisoara. He obtained his PhD Degree in 1994 and his State Certificate in Orthodontics in 2001 from the State of Romania.

From graduation of Dentistry he worked as an intern in the Department of Orthodontics and Pedodontics in Cluj-Napoca and after becoming a specialist he worked in the Medical Dental Department of Ady-Sincai High-School in Cluj-Napoca. In 2002 he moved to Abu Dhabi, U.A.E where he became Head of Orthodontic Department in the Al-Mafraq Dental Center until 2008. From 2008 to 2010 he was Head of Orthodontic Department in Al Madar Dental Center, Al Ain , U.A.E. and since 2010 until present day he is Consultant Orthodontist and CEO to Shadi International Dental and Orthodontic Centers,

During his entire career he has been preoccupied by constant improving his technique and patient-care practices and has subscribed to many orthodontic courses throughout the world.

During his presentation, Dr Wani will show the clinic where he is CEO and also present Orthodontic cases treated using different orthodontic appliances.



## **CONFERENCES**



## **DR. MEHMET AKIF BAKTIR**

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**Dr. Mehmet Akif Baktir** is lecturer at the Physiology Department, Erciyes University, Faculty of Medicine, Kayseri, Turkey. He was intern (1998-1999) and then resident physician (2006-20011) at the Faculty of Medicine University, Kayseri, Turkey. He had a fellowship concerning Bone-marrow transplantation at the same University between 2011-2013. Dr Baktir obtained a Post Doctoral training fellowship at Stanford University, School of Medicine (2013-2015) in cardiovascular medicine. He is member of the Turkish Association of Physiological Sciences, M.D. Association of Kayseri District, and Hacilar High Altitude and Exercise Club. He had a special interest in research regarding the relationship between physical exercise, neurotrophic factors and brain functions in different physiological and pathological conditions (Alzheimer's disease, type-2 Diabetes, Down syndrome). In recent conferences, his lectures were focused on autophagy or how the cells clean their houses.



### **AUTOPHAGY: AS A CELLULAR STRESS RESPONSE AND CELLULAR DEATH MECHANISM. HOW THE CELLS CLEAN THEIR HOUSES?**

For many years, especially starvation was completely treated as a damaging phenomenon to the human body. In addition, the Nobel Prize was given to Japanese scientist Yoshinori Ohsumi, who recently worked revealed the way in which starvation or cell eating itself and removing unnecessary parts, and the system of renewing the defense mechanism called Autophagy. “In Ohsumi's discoveries made us understand how the cell decomposes its contents” the Nobel committee said. The discoveries also helped us to understand the fundamental importance of autophagy in many physiological processes such as adaptation to starvation or response to infections. Mutations in autophagy genes cause diseases, while autophagic processes play important roles in some cases such as cancer and neurological diseases.

Autophagy is a mechanism by which long-lived proteins, intracellular macromolecules and organelles are introduced into lysosomes and combined with the lysosome and disintegrated. Although short-lived proteins disintegrate in the ubiquitin-proteasome system, long-lasting proteins and intracellular organelles are degraded by the autophagy system and the resulting building blocks (eg, amino acids) are regenerated for cell's use. Autophagy provides cellular reversal after lysosomal degradation and helps the cell survive in various conditions such as fasting, lack of growth factors and oxidative stress.

Paradoxically, under certain conditions, the autophagy can kill the cell via the caspase-independent pathway, with non-apoptotic cell death (Type II cell death or autophagic cell death). Many data suggest that there is a direct link between classical apoptosis and autophagy, and this linkage is being elucidated at the molecular level. The interaction between apoptosis and autophagy seems to be quite complicated. However, research in this area is of great importance because of the potential for new diagnosis, new feeding regimes, follow-up and treatment methods for health problems such as cancer, infections, inflammation and neurodegenerative diseases.

## **DR. MAXIME BERTHON**

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Dr. Maxime Berthon travaille en present en exercice libérale à orientation exclusive en parodontologie, chirurgie et prothèse implantaire - Orléans

Formation Universitaire

- Formation initiale, faculté de chirurgie dentaire - Université d'Auvergne à Clermont-Ferrand
- Maîtrise de Sciences biologiques et médicales, faculté de médecine - Université d'Auvergne à Clermont-Ferrand
- Admission au concours national des internes en odontologie
- Assistanat en division de stomatologie, chirurgie orale et radiologie dento-maxillo- faciale - Faculté de médecine dentaire de Genève
- Internat au service d'odontologie des Hôpitaux de Nice
- Thèse et doctorat en chirurgie dentaire - Université de Nice-Sophia Antipolis
- Attestation d'Etudes Approfondies en chirurgie dentaire - Université de Nice- Sophia Antipolis



### **PROPOSITION D'UN PROTOCOLE DE PRISE EN CHARGE DES TRAUMATISMES ALVÉOLO-DENTAIRE EN DENTURE PERMANENTE MATURE**

Les traumatismes alvéolo-dentaires représentent la seule véritable urgence dans notre domaine qui demande un geste technique immédiat. Un grand nombre d'entre eux se présentant dans les services odontologiques des centres hospitaliers, il est indispensable d'être préparé à les recevoir. Si ces traumatismes mettent rarement le pronostic vital en jeu, les conséquences au niveau esthétique, fonctionnel et psychologique peuvent être importantes et irréversibles. Pour ces raisons nous proposons une démarche clinique de prise en charge, depuis le traitement de l'urgence jusqu'au suivi des patients. En effet le pronostic dépendra non seulement de la sévérité du trauma mais également dans le délai et la qualité du premier geste, ainsi que dans l'anticipation de complications qui peuvent être source de séquelles importantes.

Après quelques rappels sur les principes de cicatrisation, éléments indispensables pour comprendre et aborder un traitement qui guidera les mécanismes de réparation tissulaire, nous vous présentons un protocole systématique que nous avons développé progressivement pour chacune des lésions rencontrées. Ce protocole est illustré par quelques cas cliniques.

### **LECTURE SYSTÉMATIQUE ET DÉCRYPTAGE D'UNE RADIOGRAPHIE PANORAMIQUE**

Tout ce que l'on ne voit pas et qui existe , tout ce qu'on voit et qui n'existe pas sur un cliché panoramique. Tous les secrets pour réaliser et interpréter une radiographie panoramique . Je vous propose un protocole de lecture systématique.

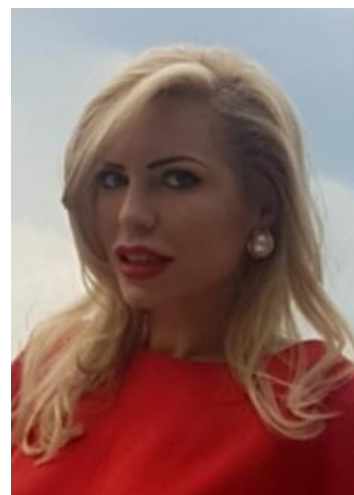


## DR. IOANA ROXANA BORDEA

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Dr. Ioana Roxana Bordea is a dentist, a doctor of medical sciences and a teaching assistant of the University of Medicine and Pharmacy "Iuliu Hatieganu", Faculty of Dental Medicine, Department of Oral Rehabilitation, Oral Health and Dental Office Management in Cluj-Napoca. Starting with 2012, she has been the author and co-author of several studies, specialized works, presented at several national and international conferences. She is concerned about the latest developments in laser treatments. She is a graduate of national and international post-graduate courses in modern procedures for facial rejuvenation and lasers.

She has completed clinical internships at Universities and private offices in the European Union, attending advanced and masters courses such as: The International Qualification in Endodontics, Il laser in Odontostomatologia Corso di Perfezionamento, Master Course in Laser Dentistry. With active participation in conferences and congresses in the country and abroad.



### THE USE OF LASERS IN DENTISTRY

**Ioana Roxana Bordea<sup>1</sup>, Ondine Lucaciu<sup>1</sup>, Aranka Ilea<sup>1</sup>, Dan Buhatel<sup>1</sup>, Anca Ionel<sup>1</sup>, Adina Sirbu<sup>1</sup>, Bogdan Crisan<sup>2</sup>, Simion Bran<sup>2</sup>, Radu Septimiu Campian<sup>1</sup>.**

<sup>1</sup>*Department of Oral Rehabilitation, Oral Health and Dental Office Management, Faculty of Dentistry, "Iuliu Hațieganu", University of Medicine and Pharmacy Cluj-Napoca, Romania*

<sup>2</sup>*Department of Surgery and Maxilo-Facial implantology, Faculty of Dentistry, „Iuliu Hațieganu”, University of Medicine and Pharmacy Cluj-Napoca, Romania*

The use of lasers in various domains of Dentistry is a current topic of research among specialists. Different kinds of lasers have been introduced in order to treat soft and hard tissues since the late 20<sup>th</sup> century.

The applications of lasers in modern medicine are very wide in specialties like orthodontics, prosthetics, surgery and endodontics.

The aim of this presentation is to show the benefits of using laser therapy for the treatment of soft and hard tissue.

Due to their benefits and results obtained in various treatments in comparison to conventional therapy the use of lasers gain more ground.

The evolutionary changes that have occurred in laser technology have led to the better understanding of the mechanisms that are involved in laser-tissue interaction, significantly improved the precision with which certain therapies were made and increased the number applications of this technologies.

## DR. ADINA BIANCA BOSCA DMD, PHD

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Lecturer at the Department of Histology, Faculty of Medicine, “Iuliu Hațieganu” University of Medicine and Pharmacy, Cluj Napoca, Romania

Medical doctor and physician specialized in Dentistry  
Skills and expertise: dentistry, stem cells biology, immunology, periodontology, histology.

Member in 8 national and international research grants

Author and co-author to 9 books and 7 chapters in specialty books, 17 ISI papers, 24 BDI papers and 68 abstracts published in the volumes of national and international congresses and conferences.



## ACCUMULATION OF N-EPSILON CARBOXYMETHYL LYSINE IN RAT ORAL CAVITY TISSUES AND ORGANS CORRELATED WITH AGING

Adina Bianca Bosca<sup>1</sup>, Marian Tăulescu<sup>2</sup>, Viorel Miclăuș<sup>3</sup>, Mihai Negru<sup>2</sup>, Anida Maria Babant<sup>4</sup>, Nausica Bianca Petrescu<sup>4</sup>, Anca Mesaros<sup>5</sup>, Cristina Gasparik<sup>5</sup>, Alexandra Irimie<sup>5</sup>, Alina Elena Pârvu<sup>6</sup>, Maria Crișan<sup>1</sup>, Aranka Ilea<sup>4</sup>

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<sup>2</sup>Department of Pathology, Faculty of Veterinary Medicine, University of Agricultural Sciences and Veterinary Medicine Cluj-Napoca, Romania

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<sup>4</sup>Department of Oral Rehabilitation, Oral Health and Dental Office Management, Faculty of Dentistry, “Iuliu Hațieganu” University of Medicine and Pharmacy Cluj-Napoca, Romania

<sup>5</sup>Department of Propaedeutics and Facial Esthetics, Faculty of Dentistry, “Iuliu Hațieganu” University of Medicine and Pharmacy Cluj-Napoca, Romania

<sup>6</sup>Department of Physiopathology, Faculty of Medicine, “Iuliu Hațieganu” University of Medicine and Pharmacy Cluj-Napoca, Romania

**Introduction:** N-epsilon carboxymethyl lysine (CML), one of the major advanced glycation end-products (AGEs), is implicated in oral diseases and various general pathologies related to aging. Our purpose was to correlate, on an animal model, the expression of CML in the oral cavity and in various organs with the age.

**Material and method:** Tissue samples were harvested from the oral cavity and organs of 10 eight-month and 10 two-year old Wistar rats, both females and males. The specimens were microscopically analyzed in routine hematoxylin and eosin stain and immunohistochemical stain using the monoclonal antibody anti-CML NF-1G (Abcam, ab30917).

**Results:** The CML accumulation had various intensities for the different tissues and organs, and was higher in adult rats compared with the young individuals. There were no differences in CML expression between males and females.

**Conclusion:** CML had variable distribution in the tissues from the oral cavity and various organs and was correlated with the age of the animals. These findings suggest that CML is implicated in the pathogenesis of oral and general diseases, and could also be associated with aging.

**Funding:** This study was supported by the COFUND-ERA-HDHL ERANET Project, European and International Cooperation - Subprogram 3.2 - Horizon 2020, PNCDI III Program - Biomarkers for Nutrition and Health – “Innovative technological approaches for validation of salivary AGEs as novel biomarkers in evaluation of risk factors in diet-related diseases”, no. 25/1.09.2017.

## **DR. WALLID BOUJEMAA**

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Maîtrise en Sciences Biologiques  
CES Dentisterie Restauratrice-Endodontie  
CES Prothèse Fixée  
CES Odontologie Légale – Identification – Thanatologie



### **STRATIFICATIONS COMPOSITES EN SECTEUR ANTÉRIEUR MAXILLAIRE AU QUOTIDIEN : QUELLE STRATÉGIE ADOPTER ?**

Les indications des techniques de stratification directe en résine composite pour réhabiliter un préjudice esthétique antérieur se sont largement étendues ces dernières années, grâce à l'essor de matériaux de plus en plus performants sur le plan mimétique. Elles s'inscrivent dans les concepts actuels d'économie tissulaire. Si elles autorisent le praticien à exprimer tout son art manuel, elles restent néanmoins soumises à des règles et des procédures cliniques rigoureuses permettant d'obtenir des résultats cliniques fiables et reproductibles.

Nous tenterons, lors de cette conférence, de partager des techniques simples et efficaces pouvant être mises en œuvre au quotidien. Des cas simples aux situations plus complexes, nous aborderons les points clés et les astuces à systématiser dans nos pratiques permettant d'obtenir des résultats esthétiques et fonctionnels à la hauteur de nos attentes.

## DR. PHILLIPE CHARPIOT

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Philippe Charpiot, 67 ans, est professeur de biochimie à la Faculté de Pharmacie de l'Université d'Aix-Marseille, directeur du département de Sciences Biologiques et du laboratoire de Biochimie Fondamentale, Moléculaire et Clinique de cette Faculté

Après des études de physique et de mathématiques, il a enseigné les mathématiques dans des cursus d'ingénieurs, mené en parallèle des études de pharmacie avec une spécialisation en Biochimie Clinique jusqu'à son doctorat en Sciences Pharmaceutiques (PhD). S'appuyant sur sa double formation, il a développé des approches d'analyse histomorphométrique quantitative de structures pariétales artérielles qu'il a appliquées à différents contextes physiopathologiques. Il a principalement réalisé ses travaux de recherche dans le domaine des remodelages de la matrice extracellulaire. A l'interface de la biologie, de l'histologie, de la physique et de la modélisation mathématique, son intérêt scientifique se porte actuellement sur les processus de reconstruction osseuse et sur une meilleure compréhension des structures et mécaniques des enthèses.

Membre actif de plusieurs sociétés savantes nationales et internationales, il a été élu par ses pairs membre du conseil scientifique (1998-2015) et président (2012-14) de la Société Française de Biologie de la Matrice extracellulaire, membre du conseil scientifique (2002-2018) et vice -président (2009-2018) du Latinorum Investigatorum de Arteriis Colloquium.

Philippe Charpiot a enseigné dans l'ensemble des domaines de la biochimie fondamentale, de la biochimie clinique et de la biologie moléculaire en faculté de pharmacie et particulièrement développé une approche pédagogique fonctionnelle de la biochimie métabolique. Il participe activement depuis 2016 aux activités de l'Association des Enseignants de Biochimie et Biologie Moléculaire des Facultés de Pharmacie dont il est le président élu depuis 2008. Il a participé ou coordonne plusieurs ouvrages de référence dans le domaine.

Philippe Charpiot a été vice-doyen de la Faculté de Pharmacie de Marseille, chargé des relations internationales de 2003 à 2018.



## **PIQUE-NIQUE CHEZ LES AUSTRALOPITHÈQUES... ET QUELQUES AUTRES VIEUX AMIS : UNE PETITE HISTOIRE DE L'ALIMENTATION.**

D'où nous viens notre diversité alimentaire ?

Nos ancêtres, lointains et proches, ont cherché autant qu'il leur était possible à élargir et sécuriser leurs ressources de nourriture. Nous allons parcourir les grandes lignes de l'histoire de notre alimentation, depuis les australopithèques et l'apparition du genre Homo jusqu'à l'homme moderne, ses richesses et déséquilibres nutritionnels. Cette histoire est jalonnée de plusieurs grandes évolutions et révolutions : le développement d'une alimentation carnée par la chasse, puis la maîtrise du feu, la révolution agricole et la récente explosion industrielle. Quels ont été les moteurs de ces changements ? Chacune de ces étapes a accompagné le développement de l'humanité et chacune a eu ses propres conséquences sur la façon de se nourrir, la santé et plus largement sur le comportement des humains.

Quelles leçons pouvons-nous tirer de cette histoire et quelles peuvent être les pistes pour une alimentation à venir qui devra être accessible, suffisante et saine pour chaque être humain et soutenable pour la planète ?

# DR. MARIANA CONSTANTINIUC

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Dr. Mariana Constantiniuc est Maître de Conférences et Chef de Département du Prothèse et Matériaux Dentaire à l'Université de Médecine et Pharmacie Iuliu Hatieganu de Cluj-Napoca Roumanie.

## LA PROTHÈSE COMPLÈTE CONVENTIONNELLE À L'ÈRE DU NUMÉRIQUE

**Cecilia Bacali, Mariana Constantiniuc \***

*Université de médecine et de pharmacie de Cluj-Napoca, Faculté de médecine dentaire*



Le processus technologique permettant de réaliser la prothèse complète conventionnelle est maintenu dans le même schéma pendant presque un siècle, à la fois en termes de matériau utilisé, de protocole et de phases de travail.

Les avancées de ces dernières années, enregistrées par la technologie numérique, ont également apporté des changements majeurs dans la fabrication des prothèses dentaires. Dans quelle mesure ces techniques modernes sont-elles reflétées dans la fabrication de la prothèse complète ? Afin de répondre à cette question, nous essayons d'analyser, dans notre étude, les particularités de certains systèmes commerciaux de CAO / FAO par rapport aux techniques conventionnelles.

Si l'utilisation des techniques numériques est devenue possible à certains stades du processus de fabrication de la prothèse complète, la contribution du dentiste et du prothésiste dentaire ne peut pas être totalement substituée, du moins au stade actuel.

## **DR. HORATIU CRISAN**

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Lecturer, Social Sciences and Humanities and History of Medicine, University of Medicine and Pharmacy Iuliu Hațieganu

### **PROFESSIONALISM AND CONSCIENTIOUS OBJECTION IN MEDICINE**

Defined as the refusal of a doctor to provide medical services permitted by law and recognized by the profession on the basis of their personal beliefs, whether of a moral or religious nature, conscientious objection is considered a moral right of doctors recognized legally in Western countries. But from the point of view of medical professionalism there is a debate about the moral status of this objection in the medical field, which is different from other fields, precisely because of the special relationship established between the doctor and the patient, which implies certain moral obligations which are specific only medical profession. To further clarify the ethical controversy over this objection based on conscience, we will look at the differences between the medical domain and other domains where the objection can be invoked in order to distinguish the reasons for which the objection would or would not be acceptable in medicine and would could be compatible or incompatible with the professional duties of physicians.



## **DR. BOGDAN CULIC**

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Dr. Bogdan Culic is Senior Lecturer, PhD, oral surgery specialist, at the Faculty of Dental Medicine of UMF "Iuliu Hatieganu" in Cluj Napoca, Romania, Department of Prosthodontics. Dr. Culic is a lecturer on dental photography, CAD/CAM, dental aesthetics and has published numerous articles and book chapters. He is a certified member of ESCD and member of several Romanian and foreign professional societies. He maintained a private practice particularly focused on implantology and dental aesthetics.



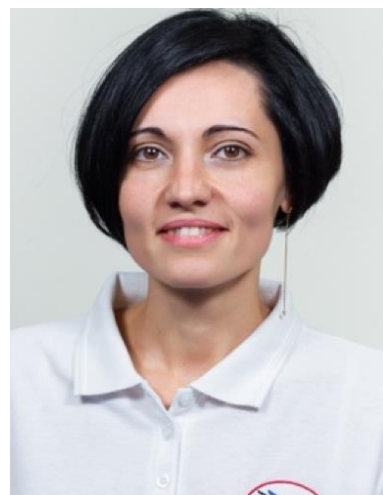
### **LES SYSTÈMES CFAO - CONCEPTS ET UTILISATION CLINIQUE**

L'utilisation des systèmes CFAO en dentisterie est de plus en plus populaire au cours des 25 dernières années. Ces innovations ont été développées dans le but initial de produire des restaurations prothétiques de manière légère, rapide et précise, avec une résistance mécanique et une esthétique adéquates. À l'heure actuelle, la numérisation intra-orale et l'empreinte en 3D sont utilisées dans différents domaines de la dentisterie, tant dans le laboratoire dentaire que dans le cabinet dentaire. Dans l'orthodontie, dans l'implantologie, dans l'odontologie, dans la planification chirurgicale le CFAO et les techniques d'imprimerie en 3D sont entrées dans le quotidien. Cela nous aide dans la planification chirurgicale des cas, dans une collaboration interdisciplinaire avec le laboratoire dentaire. Dans la présentation, les cas cliniques soulignent les principaux avantages des technologies CAD / CAM lorsqu'ils se combinent avec le flux de travail classique des labos dentaires.

## **DR. CARINA CULIC**

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Dr. Carina Culic is assistant professor at the Faculty of Dental Medicine of UMF "Iuliu Hatieganu" in Cluj Napoca, Romania, Department of Odontology. She conducts courses and practical work with the students of the IVth and VIth year in odontology and endodontics. After his doctoral studies finalized in 2015 has remained focused on the research and clinical direct restorations. It maintains a dedicated private practice dedicated to conservative dentistry.



### **TIPS AND TRICKS IN EVERYDAY DENTISTRY**

The stamp technique, predictable rubber dam isolation in difficult cases, the use of teflon tape are new approaches to help us in every day work. A new method for performing large composite restorations with precise occlusal topography it has been introduced mainly to restore Class I cavities, but also for class II. The technique is indicated when the preoperative anatomy of the tooth is intact, no loss of substance. Accurate occlusion provides precise functional occlusion when the "technical stamp" is applied. The use of the technique to restore Class II cavities is feasible, simple and practical, and results in a very precise anatomical restoration. The conference will present the indications and the protocol, for the above described techniques.



## **DR. DIANA DUDEA**

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Professor Dr. Diana Ducea, PhD, DDS, is Vice Dean, in charge of scientific affairs at the Faculty of Dentistry, Iuliu Hațieganu University of Medicine and Pharmacy, Cluj-Napoca, Romania, since 2012. She is head of Dental Propedeutics and Esthetics Division, Department of Prosthetic Dentistry and dental materials, and Adjunct investigator in the Houston Center for Biomaterials and Biomimetics of the University of Texas Dental Branch. She is member of International Association for Dental Research, Society for Color and Appearance in Dentistry, European Society for Cosmetic Dentistry, Romanian Society of Biomaterials and President of the Cluj Branch of the Romanian Society of Esthetic Dentistry.



Her scientific interests are oriented towards the optical properties of dental structures, characterization of the dental materials used in cosmetic dentistry- bleaching materials, composites, ceramics, studies on the involvement of color science in dentistry.

### **RESEARCH DIRECTIONS IN THE FACULTY OF DENTISTRY, UNIVERSITY OF MEDICINE AND PHARMACY “IULIU HATIEGANU”**

#### **Diana Ducea**

*Dental Propedeutics and Esthetic Dentistry, Department of Prosthetic Dentistry and Dental Materials, University of Medicine and Pharmacy “Iuliu Hațieganu”, Cluj-Napoca, Romania*

With a tradition of almost 100 years, the academic Dentistry in Cluj is the first teaching program in Romanian dentistry. Members of the teaching staff and students alike are involved in research projects, the majority of which are run in cooperation with researchers from Romanian and foreign institutions. As a consequence, the directions of research are ramified in different directions, being connected with the professional profile of the team, in order to provide clinical relevance to the results. Among these interests are:

- Research on Cone Beam CT for dental and maxillofacial radiology;
- Research on scaffolds for bone reconstruction in maxillofacial surgery
- Stem-cells-based studies for tissue regeneration and healing;
- Genetics and epigenetics in the oral and maxillo-facial environments, in collaboration with the Centre for Genomics and Advanced research- Medfuture;
- Experimental studies and clinical testing of classes of dental materials - composites, glassionomer cements, dental ceramics – analysis of their optical, mechanical, biological properties;
- Studies on adhesion at the interface between tooth and restorative materials;
- Perception and self-perception of the esthetical appearance;
- Improvements of the 3D imagistic in the multidisciplinary approach of the maxillo-facial anomalies;
- Biologic effects of the x-Rays, safe range of the radiations allowed in the diagnosis of oral diseases;
- Photodynamic lasers

The conference aims to focus on the research directions and on the main study protocols followed in the Faculty of Dentistry, emphasizing the infrastructure and collaborations that are currently available. Examples on the most important results, in terms of research projects and publications will be also presented.

## **DR. DINU DUMITRASCU**

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Dr. Dinu Dumitrascu graduated medical studies at UMF "Iuliu Hațieganu", during the period 2000-2006, with the 2004-2005 winter semester (including exams) at the University of Dusseldorf, in an Erasmus scholarship (in the "Kaiserswerther Diakonie" Klinik für Plastische und Esthetische Surgery).

He had an active presence in scientific research and has held presentations at several national and international student scientific events (Freiburg, Vienna, Cairo, Istanbul, with an I prize at the 10th International Scientific Conference for Medical Students and Young Doctors, Biochemistry and Pathology Section, Gdansk).

In 2006 he obtained a Doctoral scholarship at the Department of Plastic Surgery and Reconstructive Microsurgery, UMF Cluj-Napoca, with the topic "Hand Transplantation - Clinical and Experimental Contributions". During this period, he participated in several training courses in the technical fields of interest: microsurgery, hand surgery, limb reconstruction, cosmetic surgery (Cluj, Bucharest, Paris, Foggia, Athens, Innsbruck etc). Throughout this period, he has also been integrated into the practical work of the clinic, in all its aspects.

After completing his doctoral thesis, he was employed as Assistenzarzt at the "Hand Surgery Clinic and Reconstructive Surgery Clinic" of the Augsburg University Hospital during November 2010-2012. He has participated in numerous scientific symposiums and congresses in the country and abroad. Since February 2013 he has been assistant professor at the Department of Anatomy and Human Embryology of UMF Cluj-Napoca.

He is a member of the Romanian Society of Hand Surgery, Association of Plastic Surgeons in Romania.



## **COMPOSITE TISSUE TRANSPLANTATION. THE MEDICAL ETHICS**

A more and more developing subject in the field of transplantation and reconstructive microsurgery are the composite tissue transplantation. More than 70 simple or double hand transplantations have been performed till now. Also the face transplant surgery is growing with more than 40 patients receiving "a new face" till 2018. The abdominal wall, larynx or uterus transplantations are in an experimental state.

The surgery is very laborious lasting more than 9 hours and involving experienced multidisciplinary teams. But a more challenging approach is that one of the immunologist. Since composite tissue transplantation is a "life style saving" not a "life saving" procedure the medical team is facing a difficult question: is it wise to accept the risks of immunosuppression in order to just add a benefit in life quality?

The conference will present the techniques of hand and face transplantation and bio-ethical consideration in choosing the right candidates. Also the psychological aspects of the donor's family and the ones of the recipient will be discussed. The ethical concerns will be presented as well as their implications in the life of the recipient.

## DR. CEZAR LOGIN

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Licence en médecine (2003), licence en psychologie (2008), doctorat en médecine (2009). Médecin spécialiste en médecine occupationnelle (2012). Enseignant-chercheur au département de physiologie (2004-present). Titulaire de cours : *Physiologie* (médecine, médecine dentaire – sections roumaine et française), *Physiologie de la cavité orale* (médecine dentaire – section française), *Physiologie des systèmes sensoriels* (médecine sections roumaine et française), *Stratégies d'apprentissage efficace* (médecine – section roumaine).



### UN ESSAI DE REDEFINIR UNE METHODE TRADITIONNELLES D'ENSEIGNEMENT : LE COURS

#### **Cezar LOGIN**

*Département de Physiologie, Université de Médecine et de Pharmacie « Iuliu Hațieganu », Cluj-Napoca*

Le progrès accéléré de la recherche, le volume énorme d'information et l'émergence de nouvelles découvertes, qui peuvent contredire les informations préexistantes, nous obligent à reconsidérer la manière selon laquelle les disciplines fondamentales sont enseignées aux étudiants en médecine, médecine dentaire, pharmacie etc.

Quelles sont les méthodes d'enseignement optimales ? Les conclusions de nombreuses études soulignent la supériorité des méthodes d'enseignement actives par rapport aux méthodes passives, car les méthodes actives facilitent la compréhension et l'implication des étudiants dans le processus éducatif.

Souvent le cours « classique » est associé avec la passivité, le manque de motivation, les performances insuffisantes des étudiants. De l'autre part, les méthodes « modernes » sont indiscriminées associées avec une efficacité élevée. Cependant, il ne peut être considéré comme une solution possible de renoncer à la conférence classique (le cours). Une meilleure solution est d'adapter les méthodes d'enseignement traditionnelles aux besoins actuels et futurs des étudiants et au but fondamental de l'enseignement médical.

Une mise à jour des méthodes d'enseignement est aussi nécessaire que celle des données scientifiques. Le processus de mise à jour nécessite l'excellente connaissance des méthodes d'enseignement, avec leurs aspects positifs et négatifs. La solution n'est pas d'abandonner le cours, mais de le réinventer et de l'adapter, en soulignant le fait que le cours n'est que la structure fondamentale d'une discipline donnée, une carte construite activement par l'enseignant et les étudiants, qui participent également à la construction logique du contenu informationnel.

# DR. REGINALD YANN MALDONADO & MADAME MARILYN PONCHON

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## TRAVAILLER EN MUTUALITE: LA REALITE DE L'EXERCICE

La fin de vos études implique un choix d'exercice: libéral (seul ou en groupe) ou exercice en salariat (centres de la CPAM, centre mutualiste, centre d'investisseurs)

L'objet de la présentation de ce jour est de vous permettre de découvrir l'exercice en Mutualité de l'intérieur, au-delà des idées reçues.

L'autonomie d'exercice

- Vous êtes le seul gestionnaire de votre agenda et de votre cabinet.
- Choix du prothésiste: plus d'une quinzaine de laboratoires référencés.
- Seul décideur des techniques médicales.
- Flexibilité du temps de travail (plein ou partiel)
- Une prise de congés facilitée.
- Pas de Direction administrative sur place

La formation personnalisée

- Des partenariats privilégiés avec des écoles de formation spécialisées: implantologie et chirurgie, parodontologie et orthodontie.
- Des partenariats privilégiés avec des fournisseurs premium pour des techniques particulières: aligneurs, injection d'acide hyaluronique.
- La création d'un organisme de formation propre.

L'accomplissement de chaque individualité au sein d'une équipe complémentaire....

Une équipe pour vous accompagner

- Une entreprise puissante et structurée à votre écoute.
- Du personnel d'accueil.
- Une assistante au fauteuil
- Un Chef de centre (dentiste) sur place -Une équipe de confrères complémentaires pour partager
- Des prothésistes de proximité.
- Des fournisseurs attentifs et disponibles.

Les moyens matériel

- Des plateaux techniques neufs, modernes et innovants.
- Des partenariats renforcés avec des fournisseurs premium: Komet, WH, NSK, Planmecca, Global D, Biotech

Ce que vous percevez:

Des avantages financiers attractifs:

- Rémunération à l'activité sur la facturation.
- +10% de votre rémunération annuelle (congés payés).
- Des avantages divers: tickets restaurant, participation à la mutuelle, chèques culture, des chèques cadeaux pour Noël, CE avec de nombreux avantages
- Une cotisation à la retraite des cadres.
- Vos revenus en cas de maladie.

Ce que vous évitez:

- L'endettement (investissement initial puis conformité avec la réglementation)
- Les charges de personnel, l'URSSAF
- Les problèmes de trésorerie (impayés, paiement différé)
- La gestion du tiers-payant (traitement des rejets, pointages bancaires, prise en charge des mutuelles)

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Spécialiste dans Orthodontie et Orthopédie dento-faciale depuis 2012.

Membre de nombreuses associations professionnelles internationales (AAO, EOS, CMDR, ONCD).

Responsable General de l'organisation du Symposium Journées Francophones de Médecine Dentaire de Transylvanie 2016, 2017.

Auteur de plus de 25 articles de recherche indexées dans des bases des données internationaux.



### **LE CFAO DANS LES TRAITEMENTS ORTHODONTIQUES**

L'orthodontie et orthopédie dento-faciale est une des spécialités dentaires la plus cherchée par les nouveaux diplômés. Si dans le passé elle était moins populaire à cause des techniques plus difficiles dont le praticien avait besoin d'une manualité extraordinaire, les développements technologiques ont amené l'orthodontie à un nouveau niveau de développement.

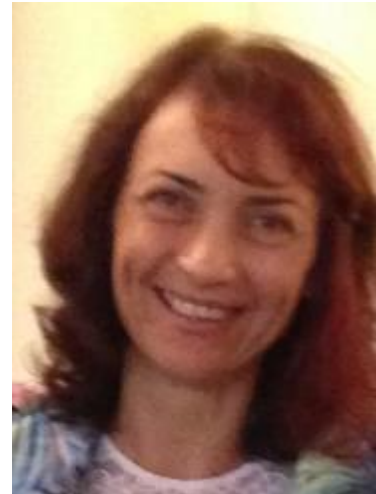
La présentation veut faire par sa part introductive la réalisation d'une revue des principes de traitement orthodontique et la manière dans laquelle elles ont été changées à travers le temps. La deuxième partie est ciblée sur les progrès technologiques et comment les étapes de travail comme la pose d'un diagnostic, l'élaboration d'un plan traitement et le raisonnement de la mécanique ont changé à cause de la numérisation.

L'illustration des changements des traitements à travers le temps va se faire à travers de cas. Des directions de recherche pour des améliorations dans les techniques actuelles vont être aussi présentes.

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Maitre de Conférence, Discipline de Pédiodontie, Université « Iuliu Hatieganu », Cluj Napoca, Roumanie. L'activité de formation universitaire pour les étudiants en médecine dentaire est accompagnée par une activité clinique dans le domaine de médecine pédiatrique. Le travail scientifique compris des livres (3) et des chapitres de livres (4), articles en extenso (24), en résumé (37), conférences et présentations aux manifestations scientifiques.



### PRÉVENTION DES LÉSIONS DENTO-PARODONTALES DANS LES TRAITEMENTS ORTHODONTIQUES

**Alexandrina Muntean, Anca Stefania Mesaros**

*Discipline d'Odontologie Pédiatrique*

*Discipline de Propédeutique et Esthétique Dentaire*

*Faculté de Médecine Dentaire*

*Université de Médecine et Pharmacie "Iuliu Hațieganu", Cluj-Napoca, Roumanie*

**Introduction:** De nos jours, de plus en plus de patients ont recours à un traitement orthodontique, afin d'améliorer ou de corriger à la fois leur occlusion mais aussi leur esthétique. Notre présentation veut illustrer les éléments à considérer pour minimiser les risques pendant le traitement orthodontique.

**Materiel et methode:** Presenter à travers des cas cliniques les éléments à observer pour optimiser les benefices du traitement orthodontique.

**Resultats et discussions:** Un traitement orthodontique est souvent long et minutieux et son succès peut parfois être compromis par l'apparition de déminéralisations qui peuvent évoluer vers des vraies caries. Les changements dans l'écosystème oral affectent la composition, l'activité métabolique et la pathogénicité du biofilm par l'augmentation du nombre des surfaces de rétention et la difficulté d'une technique de brossage efficace. Les appareils amovibles consentent une bonne hygiène dentaire mais la compliance du patient est indispensable. Le traitement avec appareils orthodontiques fixes conduit à l'agrandissement du niveau de la plaque dentaire, ce qui entraîne des atteintes aux tissus dentaires. L'application et la dépose des attaches sont aussi des manœuvres à risque pour l'email. Leur prévention doit être au cœur d'une coopération entre le l'orthodontiste et l'odontologiste tout au long de la thérapeutique orthodontique.

**Conclusion:** Les doléances esthétiques et un sourire impeccable sont la représentation du patient pour suivre un traitement orthodontique. Les exigences des nôtres patientes demandent une prévention efficace de la carie pour avoir un résultat esthétique, fonctionnel et stable après le traitement orthodontique.

## DR. CRISTIAN OLTEANU

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Responsable des travaux pratiques du Service d'Orthodontie de l'UMF Iuliu Hatieganu Cluj-Napoca.

Activité didactique – enseignement de la spécialité Orthodontie aux étudiants des sections roumaine et française, auteur de 2 ouvrages de spécialité.

Activité scientifique - docteur en sciences médicales, spécialisation en Médecine en 2010. Auteur de plus de 15 articles scientifiques, répertoriés dans les bases de données internationales.

Activité médicale - médecin traitant dans le domaine de l'Orthodontie et de l'Orthopédie dento-faciale.



## MODIFICATIONS DE L'ESTHÉTIQUE FACIALE RÉSULTANT DU TRAITEMENT ORTHODONTIQUE DES ANOMALIES DE CLASSE III ANGLE

**Cristian Olteanu<sup>1\*</sup>, Sihem Laichoubi<sup>2\*</sup>, Melinda Dull<sup>3</sup>**

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**Introduction :** L'anomalie dento-maxillaire de classe III est caractérisée par la position mesialisée des rapports occlusaux par rapport au standard neutre. Elle présente des caractéristiques complexes avec des modifications dentaires, dentoalvéolaires, squelettiques et des parties molles.

**Matériel si méthode :** Dans cet article, 208 cas ont été examinés, dont 54 présentaient une forme clinique du syndrome progénique. Parmi ces patients, 23 ont été inclus dans l'étude, répartis en 2 lots :

Lot I - patients ayant bénéficié d'un traitement compensatoire, au nombre de 15.

Lot II - patients ayant bénéficié d'un traitement chirurgical ou orthopédique à un jeune âge, au nombre de 8.

Les données cliniques sur l'anomalie de classe III ainsi que les données paracliniques obtenues à partir d'exams photostatiques et radiologiques avant et après le traitement ont été suivies, pour mettre en évidence si une amélioration de l'aspect esthétique s'est produite chez les patients inclus dans l'étude.

**Résultats :** Dans le cas du traitement orthodontique compensatoire, les modifications photostatiques favorables ont été représentées par : la réduction de la convexité du visage, l'avancement de la lèvre supérieure dans le champ du profil, le très faible repositionnement postérieur de la lèvre inférieure, l'atteinte d'un rapport labiale positive et la légère diminution de l'angle naso-labial.

Pour le lot de patients traités chirurgicalement/orthopédiquement à un jeune âge, en ce qui concerne les modifications apparues sur les téléradiographies de profil, on observe : une augmentation significative de l'angle SNA, respectivement une diminution de l'angle SNB, avec l'optimisation de la relation intermaxillaire, de l'angle ANB et de la distance Ao-Bo, une augmentation de l'angle IMPA et une diminution de l'angle inter-incisif.

**Conclusions:** Le traitement compensatoire et le traitement chirurgical ont tous deux le potentiel d'obtenir des résultats esthétiquement satisfaisants lorsque la méthode à suivre est correctement choisie.

## DR. CODRUTA POPESCU

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### CAREER PREFERENCES: TRENDS AMONG MEDICAL STUDENTS FROM UMF "IULIU HAȚIEGANU" BETWEEN 2013-2018

**Codruta Alina Popescu<sup>1</sup>, Sebastian Armean<sup>2</sup>, Anca Buzoianu<sup>3</sup>**

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*2. Assistant Professor Department of Pharmacology, Toxicology and Clinical Pharmacology*

*3. Prof. Dr. Department of Pharmacology, Toxicology and Clinical Pharmacology*

**Background:** The medical specialties chosen by doctors for their careers play an important part in the workforce planning of health-care services. During medical education, undergraduate students are confronted with a wide range of medical specialties. Their experiences have a major impact on the decision about further education and training once they have finished their basic medical studies. Our aim was to compare the evolution of medical students' career preferences upon exit from undergraduate medical school training and to determine which specialties were the most popular and desirable.

**Methods:** This was a cross-sectional questionnaire survey. Six cohorts (2013-2018) of final year medical students at University of Medicine and Pharmacy "Iuliu Hatieganu" took part in career preference questionnaire surveys. Questions were asked about demographic factors, career preferences and emigration intentions.

**Results:** 1909 students answered to the questionnaire (response rate was 100% as the questionnaire were given during the license exam). There was a significant decrease of students who didn't have a career preference from 16.6% in 2013 to 5.1% in 2018. There were changes in the ten most desirable specialities. Migration intent influences the career choice. Gender preference was observed to affect choices of few specialties.

**Conclusions:** Career guidance is important at medical school. Future research could investigate the impact of career planning interventions at medical school by following up doctors who had received such interventions with those who had not.



## **CRISTIAN SONEA GHISA**

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Detailing and Sales Representative at GlaxoSmithKline

### **THE IMPORTANCE OF DENTAL PREVENTION AND PATIENT PERCEPTION**

The presentation is about the causes of periodontal disease and treatment options along with the necessary scientific evidence. Also, it follows the oral hygiene habits of patients and their importance in preventing periodontal disease.



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### OCCUPATIONAL HAZARDS TO DENTAL STAFF OF OR RELATING TO A JOB OR PROFESSION.

**Objective:** Dentistry is considered by the practitioners and most of the public as being extremely hazardous. Dental professionals are susceptible to a number of occupational hazards. These include exposure to infections, percutaneous exposure incidents, hazardous dental materials, radiation, and noise; musculoskeletal disorders; psychological problems and dermatitis; respiratory disorders; and eye insults. This study was conducted to assess occupational hazards among the dental surgeons of city Chișinău, Republic of Moldova.

**Methods:** Descriptive cross sectional survey was conducted using a self-administrated questionnaire.

**Results:** Studies across the world have shown that, dentists as compared to other medical profession have reported more frequent and serious health problem. These problems include increased psychological stress, musculo- skeletal disorders and allergic reactions. Study comprised about 113 dentists, among them 63.3%, male and 37.7%, female dentists. Study showed 83.4% (n=58) dentists faced with physical hazards, 18.6% (n=11) chemical hazards, 53.6% (n=32) biological, 69.6% (n=42) psychological hazards. None of the dentists faced any litigation problems. Dentists with clinical experience less than 5 years had greater prevalence of physical hazard (87.5%, n=12/13).

**Conclusion:** The physical activities and body positions that predispose dentists to backaches. Continuing education programmes have to be conducted to overcome these hazards. The review of the above described hazards to which dentists are exposed in their everyday work, indicates the need for special medical care for this professional group.

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Dr. Varvara Elena Bianca est doctorant et assistant universitaire au Département de Propédeutique et Esthétique Dentaire, à la Faculté de Médecine Dentaire de l'Université de Médecine et Pharmacie "Iuliu Hațieganu" Cluj-Napoca, Roumanie. Elle est aussi dentiste en pratique privée depuis 2013. Ses domaines d'intérêts sont l'esthétique dentaire, la dentisterie restauratrice, et les techniques directes de stratification des résines composites.



### LES MÉTHODES DE STRATIFICATION DES MATERIAUX DE RESTAURATION EN RÉSINE COMPOSITE, REGARDANT LEURS PROPRIÉTÉS OPTIQUES

**Varvara EB<sup>1\*</sup>, Varvara AM, Mesaros AS<sup>1</sup>**

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Les résines composites peuvent être utilisées avec succès pour améliorer l'esthétique du patient grâce à des traitements minimum invasifs, à faible coût et avec des performances cliniques élevées.

La stratification de résines composites est un réel intérêt pour les praticiens, car l'aspect esthétique, particulièrement important pour les patients, peut être rendu par des techniques de stratification directe dans le cabinet de médecine dentaire. Le succès clinique dépend du choix du type de résines composites. Cela doit être fait en tenant compte à la fois de la couleur que nous voulons atteindre et, surtout, en respectant certaines caractéristiques des structures dentaires naturelles telles que la translucidité, l'opalescence et la fluorescence.

La propriété translucide des matériaux esthétiques améliore l'harmonie et le mélange des couleurs à l'interface entre la restauration et la dent et induit la profondeur de la couleur dans les restaurations. En même temps, les propriétés optiques des substrats dentaires dyschromique peuvent être améliorées par la présence de matériaux dentaires opaques capables de masquer et d'annuler ces dyschromies.

Considérant tous ces aspects, ainsi que la stratification dans différentes épaisseurs de résines composites avec différents degrés d'opacité et de translucidité, les praticiens pourront améliorer l'esthétique du sourire, afin d'obtenir des restaurations les meilleurs intégrés au niveau de l'arcade dentaire.

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### LES MATÉRIAUX USINABLES CFAO: FELDSPATIQUE OR LITHIUM SILICATE

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*<sup>2</sup>Chef de travaux au Département de Propédeutique Dentaire et Esthétique, Faculté de Médecine Dentaire, à l'Université de Médecine et Pharmacie "Iuliu Hatieganu" Cluj Napoca, Roumanie.*

Les systèmes CFAO utilisés en médecine dentaire, ainsi que les matériaux usinables utilisés avec ces techniques, ont connu un développement fulminant en plus de 30 ans d'existence. Cela est dû à la facilité d'utilisation et à la fabrication de restaurations physiologique extrêmement précises en très peu de temps.

Si initialement seules les céramiques feldspathiques étaient utilisées pour des reconstructions physiologiques complètes, il existe actuellement une multitude d'autres matériaux usinables CFAO: céramiques renforcées à la leucite, céramiques au silicate et disilicate de lithium, zircone, résines composites et céramiques hybrides.

La présentation a le but de mettre en évidence la classification des matériaux usinable CFAO utilisées la plus souvent dans les cabinets dentaires, leur évolution, propriétés et caractéristiques.

## **ORAL PRESENTATIONS - STUDENTS**



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## IMPACT OF SOCIAL MEDIA IN THE MEDICAL FIELD

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<sup>2</sup> Assistant professor at Department of Prosthodontics and Dental Materials, Faculty of Dental Medicine, University of Medicine and Pharmacy "Iuliu Hatieganu" Cluj-Napoca, Romania

The power of social media nowadays is countless and there aren't any fields where it hadn't had an impact yet. Its application in healthcare is changing the archaic relation between the doctor and the patient. From the young generation, to the older one, poor or rich, nobody is spared. Physicians are now so called "influencers".

The objective of this study was to evaluate the impact and the use of social media in the medical fields.

Materials and method. 4 different social platforms were investigated in this in vitro study. The engagement (like, share and comment) was studied for 10 highly renowned influencers. After evaluating which platform is mostly used, the impact on people by the number of likes or views, the number of followers, and the number of comments was investigated as well as the publications and messages they are spreading through social media.

Results. Even though a multitude of platform are available, some have a greater social impact than others on the medical fields. Even though Instagram has half active users than Facebook, it has a greater engagement value. YouTube and Twitter have a smaller engagement value than Facebook.

Conclusions: In the limit of this study, Instagram has the higher impact over social media. It has the power to spread a message in an easier and fastest way, but also with a degree of interaction that is not comparable to another platform.

## LITHIUM SILICATE RANFORCEE AVEC ZIRCONE : CELTRA DUO VERSUS VITA SUPRINITY

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<sup>2</sup> Assistant universitaire au Département de Prothèse et Matériaux Dentaires, à la faculté de Médecine Dentaire, à l'Université de Médecine et Pharmacie "Iuliu Hatieganu" Cluj Napoca, Roumanie.

De nos jours, dans notre société hyper-connectée où le numérique règne en Roi, il est difficile de ne pas entendre parler de l'informatisation de la dentisterie. Le système CFAO prend une place majeure dans cette modernisation de la dentisterie.

**L'objectif** de cette étude a été la réhabilitation avec la céramique en lithium silicate renforcée avec zircon, utilisant la technologie CAD-CAM.

**Matériel et méthode:** Une molaire mandibulaire présentant une dyschromie avancée a été préparée classiquement pour une couronne. Après une empreinte classique a été prise, un modèle en plâtre a été créé, et scannée, grâce au scanner de laboratoire inEos X5 de Sirona. L'étape de conception a été réalisée grâce au logiciel InLab de Sirona et l'étape de fabrication grâce à l'unité de fraisage correspondante InLab MC XL. Deux couronnes de lithium silicate renforcées en zircon ont été fraisées utilisant 2 matériels: Vita Suprinity - Vita et Celtra Duo - Dentsply. Après l'étape de la cristallisation, individualisation et l'essayage, la couronne choisit du patient, a été cimentée sur la dent préparée.

**Résultats:** La caractérisation est ce qui différencie légèrement les deux couronnes et ce qui permet de réaliser le choix final du patient sachant que d'un point de vue morphologique elle paraisse identique à l'œil du patient. Malgré deux couronnes pratiquement identiques et qui respectent les besoins du cas clinique, la couronne utilisant le bloque Celtra Duo a été choisit, correspondant au mieux à la demande esthétique du patient.

**Conclusions:** En limite de cette étude, même si la forme morphologique a été identique pour les deux couronnes, les propriétés optiques ont été différentes. La caractérisation d'une couronne est donc un de le point déterminant dans le choix du patient.



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## **TRAITEMENT PROVISoire DES AGENESIES DES INCISIVES LATERALES GRACE AU BRIDGE MARYLAND**

L'absence des incisives latérales maxillaires est un fait de plus en plus rencontré en dentisterie. D'après l'étude statistique réalisée par ROSE en 1906 la prévalence de l'agénésie de l'IL est de 1,1% chez les hommes et de 1,9% chez les femmes.

L'absence d'une seule dent peut altérer l'organisation et le fonctionnement du complexe facial et ainsi avoir des conséquences sur la croissance alvéolaire et le développement du squelette. Elle peut entraîner des problèmes de phonation de mastication et esthétique risquant l'implication de problème de relation et de santé.

Le choix du traitement de cette agénésie est un choix important pour l'orthodontiste qui doit choisir entre le remplacement de l'Incisive par la mensuralisation de la canine maxillaire ou créer un espace prothétique suffisant permettant l'insertion d'un implant.

Bien que la première solution thérapeutique soit plus rapide et moins coûteuse, elle ne s'adresse pas à tous les patients, et le chirurgien-dentiste doit trouver une solution temporaire afin de conserver l'esthétique, la phonation et la mastication avant l'intervention implantologie.

Le bridge maryland se trouve être une bonne solution prothétique ; il limite la taille des dents adjacentes ; offre des résultats temporaires esthétiques ; et prépare le patient à la future physiologie de son sourire après le traitement implantologies.

Nous utiliserons un modelé d'étude, une clé en silicone, un système adhésif, et un composite adapté à la teinte dentaire du patient, une matrice construct le tout étant réalisé grâce à la technique de stratification.

## DR. ROXANA FLAVIA ILIES

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Roxana Ilies graduated Iuliu Hatieganu University of Medicine and Pharmacy in 2018, earning the MD title. During university, she was involved in research in Molecular Genetics as well as Dermatology. She is currently enrolled in a PhD program at her alma mater, studying the genetic factors involved in abnormal scar formation. She is a founding member of cneo, a start-up aimed at improving recovery after ACL injury.



### CAN WE IMPROVE YOUR POST-ACL SURGERY RECOVERY?

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*3. Cluj Napoca Technical University*

**Introduction:** Anterior cruciate ligament (ACL) surgery is a common orthopaedic procedure, with a well-established protocol and minimal risks. However, obtaining the best possible result requires a long physical therapy process-needed to regain full control and mobility after the surgery. This is where most patients find difficulty in their journey to recovery-and this is where we aim to help.

**Materials and methods:** We have collected data through a questionnaire regarding patients' perceived issues in postoperative physiotherapy. Our response to the issue raised is a prototype: an embedded device, centered around a knee brace with built-in sensors measuring range of motion, alignment and movement quality and quantity. The device is connected to an app for the attending physician and physiotherapist, as well as a patient app, which acts as a guide for recovery.

**Results:** The device allows patients to perform their physiotherapy at home or at the office, while being monitored for the quality of the exercises. Furthermore, the progress charts and monitoring can turn in-person routine consults into telemedical check-ups, saving time and energy for both the patient and the medical professional.

**Conclusion:** Our device is designed to streamline the recovery process post-ACL surgery, with immediate and long-term benefits for the patient as well as the medical team.

### SEA BUCKTHORN EXTRACT IN THE TREATMENT OF PSORIASIS

**Andreea Nicoleta Boca<sup>1</sup>, Roxana Flavia Ilies<sup>2</sup>, Jacopo Saccomanno<sup>2</sup>, Raluca Pop<sup>1</sup>, Alexandru Dumitru Tataru<sup>3</sup>, Anca Dana Buzoianu<sup>1</sup>**

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#### Introduction

Psoriasis is one of the most common chronic dermatological conditions, with a strong impact on patients' quality of life. Currently, psoriasis benefits from conventional therapy with a high rate of adverse effects and an increase in non-compliance and self-medication of patients. As such, there is a need to pinpoint low-adverse effects, accessible remedies for this condition.

#### Materials and methods

Our study included 10 patients with untreated mild to moderate psoriasis. They were instructed to apply the oily seabuckthorn extract on lesions on one side of the body, and the indistinguishable placebo preparation on the opposite side. PASI and DLQI scores were calculated before treatment, and at 4 and 8 weeks of treatment.

#### Results

Our results showed an improvement in PASI scores and in DLQI scores when compared to the baseline values, as well as at the 4-week and 8-week time mark for the lesions treated with sea buckthorn extract. By contrast, the measurements for the placebo treated lesions showed no alteration at the 4-week mark, and significant worsening at the end of the trial.

#### Conclusions

The seabuckthorn preparation used in our study appears to have a beneficial effect on mild to moderate psoriasis lesions. These findings provide a solid, optimistic base for the in-depth research of sea buckthorn as an adjuvant or a component in psoriasis care protocols.

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## HEREDITARY BREAST CANCER – A CHALLENGE IN PATIENT CARE

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**Introduction:** Breast cancer is the second most common form of cancer in women, with a potential hereditary component. While hereditary breast cancer only makes up 5% to 10% of all cases, female patients with pathogenic mutations in tumor-suppressor genes, such as *BRCA1*, *BRCA2*, *CHEK2* etc., are at a higher risk of developing it. Positive family history (such as multiple family members affected with this and other forms of cancer) prompts a more rigorous approach towards the screening and early diagnosis of these patients, as well as a need for counselling for family members who could carry the same mutations.

**Case Report:** A 43-year-old female patient is diagnosed with Invasive Ductal Carcinoma NST (No Specific Type) in the left breast, confirmed by percutaneous biopsy and an MRI scan. Family history indicates an early-onset pancreatic cancer (under 65 years old) and is considered as positive, suggesting genetic counseling. We performed the Cancer Risk Test, which sequences the DNA of the patient and analyzes 30 genes which induce risk of developing cancer. The patient’s results were positive for two genes: *BRCA2*, which is associated with risk of breast and pancreatic cancer, and *CHEK2*, associated with risk of breast and colon cancer.

**Discussions:** Due to the autosomal dominant inheritance model of these genes, the patient’s successors have a 50% chance of developing breast cancer. This high risk indicates early start of screening (through mammography, breast MRI, liquid biopsy) or even preventive surgery (such as postmenopausal removal of ovaries or breasts) in order to prevent or diagnose these patients in a timely manner.

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Other Related Work Experience-> During University studying period:

- Working as an Intercultural Mediator for CLUJ NAPOCA - Human Rights for Migrants LADO Organization (2018-2019).
- Worked as an Official interpreter for Ministry of interior Affairs - Romania (2014-2017).
- An active Volunteer in Human right for Migrants- LADO Organization Cluj Napoca (2016 -2018).
- Stock & Accounts payable Manager at Lyca Mobile -Bucharest & Cluj , ROMANIA (2015-2016).
- Marketing trainee at Rainbow Cine International from 2011- 2013: SRILANKA.



## VEIN OF GALEN ANEURYSMAL MALFORMATION IN NEONATES.

Under the supervision of – Prof.Dr.med.Friedhelm Brassel  
Interventional Neuroradiology Department –Sana Kliniken, Duisburg - Germany.

**Introduction:** VGM is the most common and the most serious neurovascular disease in early childhood. VGM are choroidal AVMs with shunt connections between multiple choroidal arteries and the precursor of the vein of Galen - the median pros encephalic vein of Markowski. Happens between the 6th-11th week of fetal development. Children are often presented with CHF & fatality rate of up to about 90% if untreated. Endovascular embolization is now the first therapeutic treatment option.

**Case presentation:** A 2 years old female patient previously treated for Choroidal Type Vein of Galen Arterial Malformation –at 5<sup>th</sup> day of birth (Severe Congestive Heart Failure) Currently came for a control treatment for MRI & Angiography. After three embolization- 90 % occlusion – the child is clinically normal - No neurological, brain Atrophy or developmental deficits.

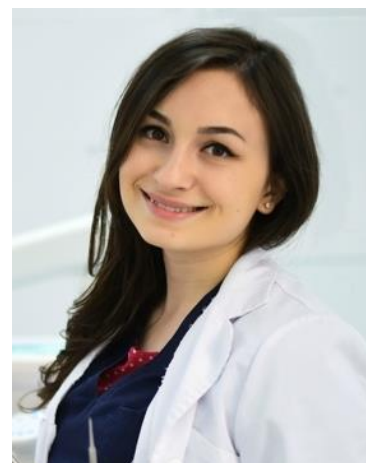
**Particularities:** Endovascular treatment became the first therapeutic option – most centers prefer the trans-arterial route with glue-embolization. But, under long observation and treatment the professor has started to introduce his technique of Combined transvenous and trans-arterial approach to allow closure of the fistulous connections with its in- and outflow zone.

**Conclusion:** Endovascular treatment of VGM using a combined Transvenous and Trans-arterial approach is a safe & efficient procedure with improved outcomes, even in the high-risk group of neonates with congestive heart failure. It offers a new understanding of the angioarchitecture thus improving the treatment options.

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## INTÉGRATION TISSULAIRE D'ÉCHAFAUDAGES EN TITANE FABRIQUÉS PAR FUSION SELECTIVE PAR LASER

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**Introduction:** Les échafaudages en titane fabriqués par fusion sélective par laser (FSL) ont une valeur significative pour la reconstruction osseuse dans le domaine de la chirurgie buccale et maxillo-faciale. Bien que leurs propriétés mécaniques et leur biocompatibilité aient été analysées, nous manquons encore d'informations adéquates concernant l'intégration tissulaire. Par conséquent, le but de cette étude est une évaluation systématique complète des paramètres essentiels requis pour assurer la performance à long terme des implants médicaux en titane réalisés par FSL.

**Matériel et méthodes:** Une recherche documentaire systématique a été effectuée dans les bases de données électroniques PubMed, Medline et Cochrane, en utilisant une sélection de termes MeSH pertinents. L'analyse documentaire a été effectuée à l'aide des éléments de rapport privilégiés pour les examens systématiques et les méta-analyses (preferred reporting items for systematic reviews and meta-analysis - PRISMA). Une partie expérimentale a également été menée pour étudier l'influence in vitro de matrices de titane, pures ou recouvertes d'une couche d'hydroxyapatite (HAP), sur des cellules souches mésenchymateuses adultes (CSM) prélevées de divers tissus de la cavité buccale (papille apicale, pulpe dentaire, os inter-radiculaire et os tubérositaire).

**Résultats:** Les combinaisons de termes de recherche ont donné une liste de 234 titres. Vingt-quatre publications répondaient aux critères d'inclusion et ont été sélectionnées pour l'étude. Les résultats indiquent que les échafaudages en titane générés par FSL ne présentent aucune cytotoxicité, leur intégration tissulaire étant assurée par une dimension de pores de 400 à 600 µm, un degré de porosité élevé et divers traitements de surface. Des résultats similaires ont été obtenus dans l'étude expérimentale. Les cellules souches isolées de l'os inter-radiculaire ont eu une prolifération et une différenciation plus intenses à la lignée ostéoblastique avec une architecture nodulaire que les autres lignées CSM.

**Conclusions:** La revue de la littérature a révélé que les échafaudages en titane fabriqués par SLM ne présentent pas de cytotoxicité, des propriétés telles que la petite taille des pores, une porosité élevée et un traitement de surface améliorant leur intégration tissulaire. La biocompatibilité de cette technique la rend prometteuse pour d'autres applications cliniques, car elle pourrait améliorer la régénération osseuse.

**Remerciements:** Cette recherche a été soutenue par la subvention interne n° 4995/2/08.03.2016 dans le cadre de l'Université de Médecine et de Pharmacie "Iuliu Hațieganu", Cluj-Napoca.

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## BIOCOMPATIBILITY OF TITANIUM SCAFFOLDS MANUFACTURED BY SELECTIVE LASER MELTING TECHNIQUE (SLM)

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**Introduction:** Titanium is the material of choice for oral and maxillofacial surgery reconstructions due to its mechanical and chemical properties. Selective Laser Melting is an additive manufacturing method by which a titanium powder is melted and solidified by a laser which builds solid structures with tridimensional guided design.

**Objectives:** The aim of this study was to assess the osseointegration of 2 series of Titanium scaffolds with different cell size obtained by Selective Laser Melting technique. Half of the scaffolds were coated with nanohydroxyapatite on the surface and the influence of the nanohydroxyapatite in the osseointegration process was evaluated.

**Materials and methods:** The titanium scaffolds were manufactured at the Technical University of Cluj-Napoca. The scaffolds were implanted in the femur of 6 White Californian male rabbits: 3 animals received 0.8 mm cell size scaffolds and the other 3 received 1 mm cell size scaffolds. Probes harvested at 2, 4 and 6 months were histologically analyzed using conventional light microscopy and scanning electron microscopy for the qualitative evaluation of the osseointegration.

**Results:** The presence of the nanohydroxyapatite on the surface of the matrix accelerated the process of bone development and helped forming a more resistant structure. The scaffolds with the size of the matrix of 0.8 mm had a better interaction at the bone-implant interface.

**Conclusion:** The presence of nanohydroxyapatite on the surface of the implant and a smaller size of the matrix bring benefits in the process of osseointegration and bone development on the scaffolds manufactured by SLM.

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**ORAL PRESENTATIONS - YOUNG SCIENTISTS**



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### NEW VERSUS OLD ORAL ANTICOAGULANTS IN DENTISTRY - LITERATURE REVIEW AND CASE REPORT

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**Introduction:** Anticoagulants are used for the prevention and treatment of thrombotic disorders. The new oral anticoagulants (NOACs) are designed to counteract the limitations of traditional anticoagulants (Vitamin K antagonist, Unfractionated Heparin or Low Molecular Weight Heparins). The main disadvantage of NOACs is the absence of clinically researched protocols regarding their management in case of bleeding dental procedures.

**Material and Methods:** The literature review of the NOACs protocols in dentistry was performed (by searching in PubMed, Medscape, Cochrane medical databases). The resulting articles were analysed through a two-step algorithm in order to identify the eligible papers.

**Results:** After the articles selection process, 20 papers were included in the present review. The analysis revealed that five used or recommended a protocol including only the cessation of NOACs, three used or recommended the non-cessation of NOACs and twelve eligible papers gave specific recommendations for both cases.

**Clinical Presentation:** A 62-year old patient under treatment with a NOAC, Rivaroxaban (Xarelto), complained of transitory pain during mastication in the posterior upper-right jaw. The extraction of 1.7 was indicated. The non-cessation of the anticoagulant was decided, in accordance with the available literature on the subject, the tooth was extracted and the socket was sutured. During the following days of the intervention, repeated bleeding incidents were reported in direct correlation with the administration of Rivaroxaban.

**Conclusions:** The subject of NOACs in relation with bleeding procedures has not been researched enough. The available indications were mostly developed based on the pharmacodynamics or on small cohort studies. Thus, further clinical research on the subject is needed.

**Acknowledgement:** This study was financed partially by the COFUND-ERA-HDHL ERANET Project, European and International Cooperation - Subprogram 3.2 - Horizon 2020, PNCDI III Program - Biomarkers for Nutrition and Health – "Innovative technological approaches for validation of salivary AGEs as novel biomarkers in evaluation of risk factors in diet-related diseases", grant no 25/1.09.2017.

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Anida-Maria Babant graduated "Iuliu Hațieganu" University of Medicine and Pharmacy, Cluj-Napoca, Faculty of Dentistry in 2014. After her training at Oro-maxillofacial Hospital Department in Cluj-Napoca and final exam, she is a senior doctor in Oral Surgery. In present, she works as an Assistant Professor at Oral Rehabilitation, Oral health and Management Department, UMPH "Iuliu Hațieganu". Dr. Babant is an active member of ERANET Project - Biomarkers for Nutrition and Health – "Innovative technological approaches for validation of salivary AGEs as novel biomarkers in evaluation of risk factors in diet-related diseases", and, as a PhD student in third year, she studies the implication of diet-derived glycation products in oral pathology, and their correlation with metabolic syndrome.



### ADVANCED GLYCATION END PRODUCTS (AGEs) ULTRASOUND EVALUATION IN FACIAL SKIN AND MUCOSA

Anida-Maria Babant<sup>1</sup>, Aranka Ilea<sup>1</sup>, Nausica Petrescu<sup>1</sup>, Bianca Bosca<sup>2</sup>, Maria Crișan<sup>2</sup>, Manuela Lenghel<sup>3</sup>, Anca Ionel<sup>1</sup>, Andreea Pop<sup>1</sup>, Willi Uriciuc<sup>1</sup>, Codruta Mirica<sup>1</sup>, Claudia Feurdean<sup>1</sup>, Radu Septimiu Campian<sup>1</sup>

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**Introduction:** Chronic subclinical inflammation can be induced Advanced Glycation End Products (AGEs). These proteins can be evaluated in skin and mucosa using ultrasonic techniques, due to tissue's hypersignal. The present study assessed AGEs in zygomatic area skin and lower lip mucosa using two ultrasounds devices.

**Material and methods:** The study was conducted on a group of 20 subjects. Skin phototype was recorded. A L64 linear array transducer (18-MHz) (Arietta, Hitachi, Ltd. 2013, 2017, Q1E-EZ1295) and a linear B-Scan mode applicator (38 MHz) (DUB SkinScanner Taberna pro medicum, ScanLoop 2000) were used. The linear transducer was positioned at the level of the zygomatic area and lower lip mucosa. The following skin structures were evidenced: epidermis, subepidermal band (papillary dermis), dermal band (reticular dermis), hypodermis, elasticity and density. Ultrasound investigation images were exported to process soft and quantitative measurements were performed.

**Results:** AGEs hypersignal was analyzed in skin and inferior lip mucosa. Results were compared with skin phototype and patient's age. The dermis is the main skin component for AGEs accumulation. AGEs were found higher in zygomatic area compared to oral mucosa. Subject with IV skin phototype had lower AGEs concentration compared with II either III skin phototype. In elders AGEs were more expressed compared to youngsters. Sun-exposed skin was thinner compared to oral mucosa, revealing elastosis.

**Conclusions:** The AGEs accumulation are influenced metabolic syndrome, age and sun-exposure. Ultrasonic assessment is non-invasive, easy handling, allows multiple measurement, with accurate and reproducible results.

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### CLASS II RESTORATIONS. PERIODONTAL AND RESTORATIVE IMPLICATIONS

**Andreea Cîndea (Ciurea)\*<sup>1</sup>, Alexandra Roman<sup>1</sup>, Andrada Soancă<sup>1</sup>, Iulia Cristina Micu<sup>1</sup>, Daniela Condor<sup>1</sup>**

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**Introduction:** The aim of this preliminary investigation within doctoral studies, was to evaluate the clinical behavior of class II direct restorations with an ormocer (Admira Fusion X-Tra®, Voco), whose composition provide a reduced shrinkage and it has the clinical advantage of bulk application and good aesthetics.

**Material and method:** Seven patients with class II carious lesions were included in this study. Ten medium and deep direct fillings have been done in association the Palodent V3 Matrix System. Four periodontal parameters were evaluated ( plaque and bleeding indices, probing depth and attachment loss) at four different times, preoperatively, as well as at fourteen days, one and three months after the intervention. The quality of restorations was also appreciated using the modified US Public Health Service criteria.

**Results:** A decreased trend of plaque and bleeding indices was calculated. A decreased probing depth was recorded for nine restorations at follow up visits in comparison with baseline. For the most restorations, probing depth was stable at follow-up moments. Restorations' behaviour was optimal.

**Conclusions:** Restorations behaviour and their periodontal influence did not recorded any negative modifications.

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### THE SUBGINGIVAL MAKEUP IN A GROUP OF PERIODONTITIS PATIENTS

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**Introduction:** Periodontitis is a ubiquitous disease, affecting more than 50% of the population. It has a multifactorial etiology but the biofilm plays the most important role. Different subgingival microbial compositions may induce different periodontitis phenotypes. The present study belongs to a wide area of the PhD research and aims to investigate the subgingival bacterial composition in a group of periodontitis patients using the conventional method of bacterial cultivation.

**Materials And Methods:** Samples from the five deepest periodontal pockets were taken from each patient and transported to the laboratory of *Infectious Disease Hospital* to be cultured using specific methods. The final bacteria identification was made using the MaldiTof (matrix-assisted laser desorption/ionization) method.

**Results:** Various bacterial serotypes were recorded including Gram positive and Gram negative species. The most common Gram negative bacteria were: *Veillonella Parvula* and *Fusobacterium Nucleatum*. Periodontopathogens belonging to red complex were not identified.

**Conclusion:** A disappointingly reduced Gram negative flora was identified in this group of periodontitis patients, which highlighted the reduced specificity of the cultivation method. Other approaches are in view for further research.

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### PERIODONTAL STATUS IN A GROUP OF ORAL CANCER PATIENTS

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**Background:** Numerous studies show that periodontitis is a major risk factor or may be linked to various systemic diseases and conditions. Of particular interest is the involvement of chronic periodontitis in the oral cancer development and progression. The aim of this paper was to assess the periodontal status of oral cancer patients and their behaviors towards oral health.

**Methods:** A number of 21 patients with oral cancer were recruited for this study from the Cranio-Maxillofacial Surgery Department. Information regarding socio-demographic status, tobacco consumption and oral health care behaviors were collected by means of a questionnaire. Dentate patients received a full mouth examination. Following parameters were recorded according to the standard international periodontal protocols: Missing teeth, Pocket depth (PD), Attachment loss (AL), Bleeding on probing (BOP) and Plaque score (IHI).

**Results:** Among subjects recruited for this study with an average age of 61.57 years there were predominantly men and urban residents. A quarter of the patients were completely edentulous. Dentate subject in this study were heavy long-time smokers or former long-time smokers while edentulous patient were smokers with a 10 years higher average period compared to dentate patients. Oral hygiene habits of most patients were extremely poor. The dentate group scored extremely high IHI and BOP, numerous PD $\geq$ 5mm, extensive AL and numerous missing teeth.

**Conclusion:** Patients with oral cancer recruited for this study were not only heavy smokers but had also poor periodontal status which could contribute to the cancer development. Future research is needed to confirm this hypothesis.

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### MANAGEMENT OF THE ANXIOUS PATIENT IN THE DENTAL OFFICE

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**Introduction:** The problem of anxiety is widely known in dentistry. Even though it's a very recurrent issue, there was not established a protocol which can be used for undeniable results.

The aim was to find in the literature in order to find out what are the strategies the practitioners can use to help patients overcome their of the dentist.

**Material and Methods:** It was made a review of 24 articles on Pubmed platform using the terms "dental anxiety". There were chosen publications regarding the possible solutions for managing dental anxiety.

**Results:** The solutions proposed in the scientific literature were: Cognitive Behavioral Therapy, relaxation techniques, premedication with sedative drugs (benzodiazepine), music distraction, hypnosis, acupuncture, inhaled sedation, aromatherapy with essential oils parental presence/absence for children and audiovisual distraction.

**Conclusion:** Cognitive Behavioral Therapy is the most efficient solution for the patients to overcome dental anxiety. All the strategies used were more efficient when associated with repeated exposure to dental treatment.

**Acknowledgements:** This study was supported by "Iuliu Hațieganu" University of Medicine and Pharmacy Cluj-Napoca in Doctoral Research Projects (PCD 2016), no. 7690/15.04.2016.



## **WORKSHOPS**



## **3D PRINTING- ADDITIVE MANUFACTURING IN DIGITAL DENTISTRY- THE DLP PROCEDURE**

Dr. Burde Alexandru is an Assistant Professor, PhD at the Faculty of Dental Medicine, "Iuliu Hatieganu" University of Medicine and Pharmacy in Cluj Napoca, Romania, Department of Prosthodontics and Certified Dental Technician focused on digital dentistry. His doctoral thesis and research is orientated towards additive and subtractive manufacturing in dentistry. Dr. Burde conducts courses and practical work with dental technology students and focuses on Selective Laser Melting production of complex metal structures in the private practice.



This workshop will provide participants with a hands-on introduction into DLP (Digital Light Processing) 3D printing. Specifically, we will discuss the basic procedures of 3D printing, the types of software used for 3D rendering and pre-processing of digital files, and end-user cases for different 3D printing procedures, both academic and commercial. We will discuss in depth the DLP procedure and participants will receive a walkthrough on how to prepare digital models for DLP printing and how to post-process objects obtained through this method.

## **RETROUVEZ LE PLAISIR DE SOURIRE GRÂCE AU TRAITEMENT INVISALIGN. DE LA PREMIÈRE CONSULTATION À LA CONTENTION**

Dr. Christian Bitar is an Alumni of the Faculty of Dentistry from the Iuliu Hațieganu University of Medicine and Pharmacy, Cluj-Napoca Romania. He graduated dentistry in 2016 and he has been working since in his Clinic in Amiens, France.



Les aligneurs transparents Comment ça marche ?

Amovibles, confortables et quasiment invisibles, les aligneurs se changent toutes les semaines ou deux semaines en fonction du diagnostic du praticien.

Cela permet d'aligner le sourire tout en douceur. Les aligneurs doivent se porter 22H/24H et s'enlèvent pour manger.

Chaque fonction est conçue pour révéler le sourire que les patients méritent.

Les étapes du traitements Invisalign

1. Empreinte optique numérique ou empreinte dentaire
2. Grâce à son expérience clinique, le praticien travaillera le Clincheck (simulation 3D de la bouche) avec une précision incomparable. Lorsque le Clincheck 3D est prêt, il sera envoyé par mail. Cela vous permettra de visualiser le résultat avant même de commencer le traitement.
3. Fabrication des aligneurs
4. Un mois après la prise d'empreinte, l'intégralité des aligneurs sera réceptionnés au sein du cabinet. Les rendez-vous sont toutes les 8 à 12 semaines pour surveiller l'évolution du traitement et vérifier la bonne adaptation.

Durée : entre 3 mois et 24 mois selon les cas

La contention : Deux ans après un traitement d'orthodontie.

Lorsque le traitement d'orthodontie se termine, il est primordial de stabiliser et de maintenir le résultat dans le temps sous peine de récurrence. La contention assure le remaniement tissulaire autour des dents qui ont été déplacées.

Les dents bougent toute la vie : il est nécessaire de porter une contention minimum deux ans après le traitement d'alignement.

# COMMENT ETRE EFFICACE ET CONSERVATEUR AVEC UN SEUL INSTRUMENT POUR LA PREPARATION CANALAIRE - ONE CURVE / MICROMEGA

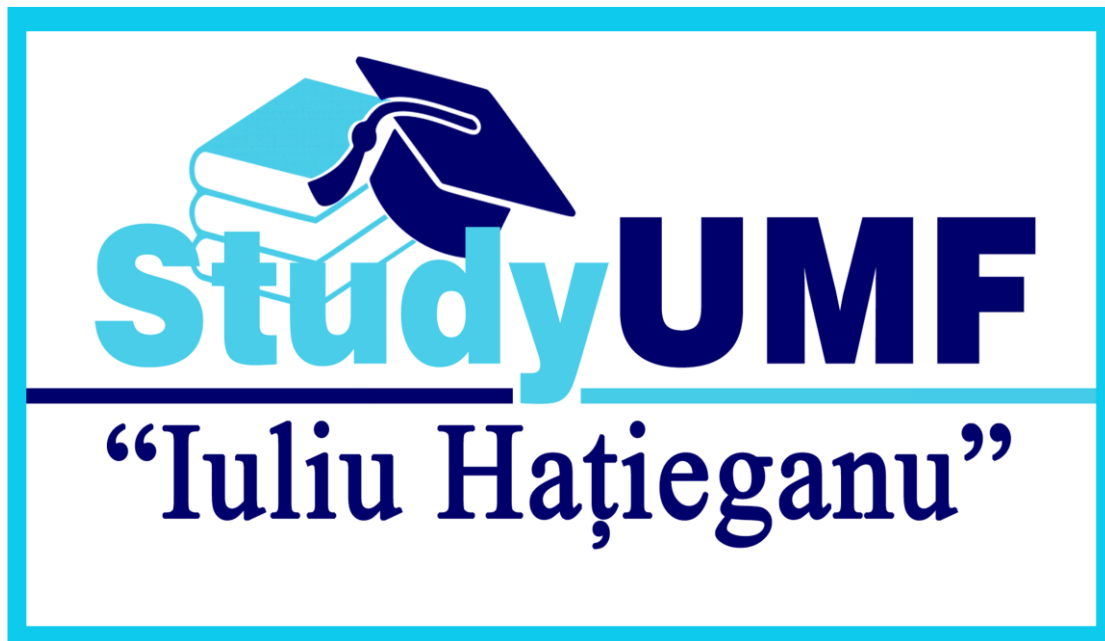
## *Coordonateurs:*

- Sef lucr. Sanda Cimpean
- As. Univ. Ioana-Sofia Ciutrla
- Sef lucr. Loredana Colceriu



Les méthodes de traitement endodontique ont connu une importante et rapide évolution dans la dernière décennie, tant sur la simplification de l'instrumentation et sur l'amélioration du procédé de fabrication de celle-ci que sur l'essor réel des connaissances fondamentales de biologie, physiologie, pathologie et bactériologie de l'endodonte.

Avec l'introduction du Ni-Ti en Endodontie, différents systèmes en rotation continue ou en mouvement de réciprocité ont été mis au point par les industriels, afin de permettre une utilisation plus ergonomique et plus sûre, tout en obtenant une augmentation de la qualité de nettoyage, la clé du succès thérapeutique. L'évolution des procédures de fabrication des limes endodontiques, l'électropolissage et les traitements thermiques des alliages Ni-Ti dont ils sont confectionnés permettent de nos jours la préservation de cette anatomie canalaire initiale. En même temps, elles assurent une réduction du nombre d'instruments nécessaires pour un traitement complet et une diminution du temps de mise en forme, rendant le traitement moins opérateur dépendant.



Event organized as part of the project  
**FDI STUDY-UMFIH code: CNFIS-FDI-2018-0227**  
of the Iuliu Hatieganu University of Medicine and Pharmacy, Cluj-Napoca, Romania  
Project Director: Dr. Anca-Stefania Mesaros



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Project Director: Dr. Anca-Ştefania Mesaroş



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